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**The Accessibility of Workplace Built Environment to the  
Disabled Employees in Malaysia**

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**ABSTRACT**

The study examines various aspects of workplace built environment provided by the employers in Malaysia to their disabled employees. The assessment is gauged by the disabled employees personally, based on the contributions of the employing organisation, in relation to organisation contributions for the disabled employees, the facilities provided, the accessibility of the facilities provided, and their level of satisfaction with the condition of the provided facilities. The study employs survey research design using questionnaire as the tool for data collection. The 387 respondents were from Selangor, Kuala Lumpur, Putrajaya, Kelantan, Kedah, Pulau Pinang, and Johor. Data were analysed using descriptive statistics whereby the frequency, percentage, means and standard deviations are presented.

**Keywords:** accessibility, workplace built environment, disabled employees, Malaysia, level of satisfaction

## INTRODUCTION

The pervasive concern of disabled employees battling their way into the work arena has increasingly become the focus of public attention. Being a minority underprivileged group, the disabled are too often overlooked by employers in employment (Salleh, Abdullah & Buang, 2001) as they are perceived as incapable to contribute positively in demanding work places. Of the estimated 260000 disabled population in Malaysia in 2006, a total of 197519 persons with disability had registered with the Department of Social Welfare of the country; and according to Abdul Rahman (2007), Only 4 percent of those registered were employed in the labor market. Generally, on average of 100 work applications of the disabled, only 3 qualified for employment (Razak, 2007).

In Malaysia, more conscientious efforts are being implemented aggressively to ensure increased allocation for employment of the disabled in both public and private sectors. Ambitious legislation, policies and programs are also introduced in Malaysia to promote awareness of the rights of the disabled; and to promote employment opportunities to the disabled jobseekers (Khor, 2002). However, recent statistics revealed the progress being stiff as employment challenges still befall the disabled population; limiting their access and participation in the labor market (Osman, 2003; Kaur, 2007) and hindering them from positively contributing to the growth of the nation. Years have passed, yet the effort of the government to ensure at least 1% of job opportunities in the public sector is being allocated to the disabled received little success (Salleh, Abdullah & Buang, 2001; Khor, 2002). According to Razak (2007), up to September 2006, statistics by the Department of Labor Malaysia reported a minimal total of 325 disabled workers managed to work in the public sector. They were the physically impaired, blind and deaf, working as skilled and unskilled professionals and non-professionals. However, 6691 disabled workers work in the private sector.

Although some companies are reluctant to give way for employment and full participation at work to the disabled on the grounds of their disabilities (Khor, 2002), others fear the costs and risks of accommodating them (Butler, 2007); while only a few are keen to do otherwise as they begin to tap the resourceful potential of the disabled employees who are proven to be loyal, productive (Khor, 2002), reliable and motivated (Hawthorne, n.d.) and whose dedication can benefit organizations effectively.

As the issue of employing the disabled have increasingly become the societal concern of the citizens and the legal concern of the government entities in Malaysia, this research is an initiative to examine challenges faced by the disabled workers, with the aspiration to mend the misconceptions and inappropriate discriminative conduct people have towards these potentially gifted individuals.

The disabled population is part of every nation's society, thus, it is the peoples' responsibility to care for them and to help ensure that they are provided equal work opportunities and with basic rights to contribute productively to the nation. Like every other beings, the disabled people deserve to have their rights protected, voices heard, needs fulfilled, just as they are worthy of full participation and fair treatment in society despite their inadequacies. Their state of welfare, work and living should be protected from harm and this should be the concern of every ideal human being. Prophet Muhammad (p.b.u.h.), reported by Anas r.a.; *"One is not a true believer till he loves for his brother what he loves for himself"* (Al-Bukhaari and Muslim).

Prophet Muhammad (p.b.u.h.), narrated by Abu Hurairah r.a., also reminds us of the need of our selfless responsibility towards the disabled for the betterment in this life and rewards in the Hereafter; *"Whoever relieves a worldly grief from a believer, Allah will remove from him one of the grieves of the Day of Judgment. Whoever relieves the suffering of someone on difficulty, Allah will relieve his suffering on earth and on the Day of Resurrection. And whoever covers the disgrace of a believer, Allah will cover his disgrace on earth and in the Hereafter. And Allah will help his servants when they help others"* (Muslim).

### **Problem Statement**

Being highly concerned of the well-being of its citizens, the government of Malaysia has been striving relentlessly to ensure easy access, equal opportunities, treatment and rights for the disabled people in the labor market. However, still many disabled people have limited participation in both public and private sectors of the nation. The disabled population still faces many barriers to employment. The Malaysian societies still neglect the awareness and concern over the disabled workers and their productive capacity to perform work diligently. Disabled people are too often stereotyped in cases of public welfare, constantly in need of sympathy and relief aid instead of being seen as productive individuals who also can contribute to organizations' effectiveness and the growth of the nation.

Generally, the disabled workers in Malaysia are exposed to employment opportunities and challenges. More often they have constantly been in an inevitable struggle to overcome common barriers to attain easy access to, full participation, equal rights and fair treatment in the workforce primarily due to their misperceived inadequacies. Furthermore, based on some past research findings on Malaysian employers' attitudes toward employing persons with disabilities, innocently the disabled persons are often discriminated by employers in organizations who would rather employ normal individuals deemed able and more productive.

## **Objectives of the Study**

In general, the main objective of the study is to gauge the accessibility of the workplace built environment to the disabled employees in Malaysia. The specific objectives of the study are to examine the aspects of workplace built environment in terms of (1) organisation contributions for the disabled employees, (2) facilities provided, (3) accessibility at the workplace, and (4) the level of satisfaction of disabled employees towards these facilities.

## **Significance of Study**

This study explores the preparedness of the employers to accommodate the disabled employees as perceived by the disabled workers. These findings are useful in terms of the practical implications and for policy making strategies by the relevant authorities.

## **LITERATURE REVIEW**

### **Disability Defined**

According to the Americans with Disabilities Act of 1990, the term disability means “physical or mental impairment that substantially limits one or more of the major life activities of such individual; a record of such impairment; or being regarded as having such an impairment” (ADA, 1990). If an individual is unable to perform major life activities including caring for oneself, walking, seeing, hearing, speaking, breathing, or learning, to the extent of the average person, then the individual is considered disabled. In addition, disabled person includes individuals who were disabled in the past or who are, considered to be disabled by some other people or organisation. Furthermore, the law also covers people who are only temporarily disabled, or those that may overcome the disability with the help of some specific device (Nelson & Kleiner, 2001).

### **Organizations’ Climate (Policies and Initiatives)**

People with disabilities are known to occupy a disadvantaged position in the labor market. Two main categories of explanation can be identified: the inability of the disabled people to compete in the labor market as a result of work limitations stemming from disability-related impairments and social barriers which act to limit their employment opportunities.

According to Dibben, James & Cunningham (2001), disabled people can be discriminated by internal organisational policies, practices and attitudes. As asserted by Peck and Kirkbride (2001), employers are fear of costs, additional supervision, productivity loss, and being “stuck” with a substandard employee. As pointed by Bruyere, Erickson & VanLooy (2006), this may due to the perceived lack of related experience and requisite skills

and training on the part of the individual with a disability, and lack of supervisor's knowledge on the disabilities provision.

### **Organizational Job Design**

The job needs to be designed to suit the difference impairments of the employees. Jobs can involve moving between sites, so the work space is not always static. Whilst wheelchair users, and some other people with mobility impairments, may prefer plenty of space but if the space is too big, it can cause problems for people with a visual impairment who are trying to find their ways (Newton, Ormerod & Thomas, 2007).

### **Reasonable Adjustments**

Employers are required to make reasonable accommodation for disabled workers to perform their work. Reasonable accommodation clause refers to the requirement that employers made with regard to any necessary adjustments in the job or job environment to ensure that a disabled worker has the same rights and privileges as other employees. Reasonable accommodation may include making existing facilities readily accessible to and usable by the disabled persons. It may also include job restructuring or modifying work schedules, equipment, training, and policies. However, employers are not required to lower the quality or production standards to make an accommodation, or to provide personal use items such as glasses or hearing aids (Christie & Kleiner, 2001; Nelson & Kleiner, 2001). However, if these accommodations are deemed too costly or disruptive to the company such that the company is adversely affected, the accommodations may not be required. However, others studies have shown that the average cost to accommodate a disabled person is \$200 (Christie & Kleiner, 2001), which is equivalent to RM640 (exchange rate of 3:2).

Newton, Ormerod & Thomas (2007) found that the concept of "reasonable adjustment" was poorly understood, some employers being unaware of the term and others were unsure of its meaning in practice. According to Bruyere, Erickson & VanLooy (2006), 40 percent of small business owners were unaware of the ADA, and 30 per cent said they knew about the law but could not afford to make structural adaptations.

Barriers in the built environment may be a problem for employers who are willing to employ disabled people, but are hindered by the lack of accessible building in which to employ people. It may be that employers believe that new buildings conforming to minimum building regulation are accessible and they are therefore meeting the requirement of the ADA. For instance, according to the new law, all public have to assign two percent of their space for the handicapped motorists. A parking lot with fewer than 50 spaces must reserve at least one for the handicapped (China Post, June 6, 2007). In addition, wheelchair accessible parking space must be located on the shortest possible route from the parking lot to the nearest accessible

building entrance. Accessible parking spaces must be at least 96 inches wide, and be on level ground with slopes not more than 1:50 (2%) in all direction. Accessible parking spaces must be clearly marked as reserved using appropriate signs. In addition, all walks, halls, corridors, aisles, skywalks, tunnels and other spaces designated as accessible routes must be with a minimum width of 32 inches at a point and 36 inches continuously. Building passageways must also be able to make allowances of at least 60 inches minimum for two wheelchairs to pass (Kleiner & Hammond, 2005). Newton, Ormerod & Thomas (2007) found that inaccessibility of the working environment matters to people in all impairment groups, when entering or staying in employment. For example, people with visual impairment may not know there is an intercom; wheelchair users may not be able to reach them; deaf people cannot hear if anyone replies. The built environment is a key issue in gaining access to the world of work. In short reasonable adjustments do not seem to have been accommodated. Further, Newton, Ormerod & Thomas (2007) found that the built environment has a detrimental effect on disabled people, who despite their best effort cannot take part on equal terms with non-disabled people in the workplace.

In the past, the concept of disability was considered in purely physical terms. Building were designed or fitted with access ramps, disabled toilets or refuges for evacuation. But now, the concept is much broader and covers all people with any kind of impairment affecting their ability to enter and to leave buildings unaided. Accessibility has a wider relevance. It is about creating a suitable environment and this has been covered in design statement (Planning, August 3, 2007).

## **METHODOLOGY**

### **Research Design**

The study employed survey research design using questionnaire as the tool for data collection. The self-developed questionnaire was used to gather relevant information on the employment challenges and opportunities for the disabled employees.

This study is strongly based on the importance to identify and explore challenges and opportunities among the disabled people. This study reviews the major challenges facing the disabled workers.

### **Sampling Procedure and Data Collection**

The questionnaires were distributed and administered by a number of trained enumerators personally when handing over the questionnaires to the target respondents, the disabled employees in selected states in Malaysia.

The disabled people could either be hired as employees (194) or working on their own (190). Therefore, the total number of disabled respondents is 384.

## Data Analysis

The SPSS software was used to systematically analyse all the data obtained from the respondents, and to generate statistical information for detailed analyses of the survey results. The Descriptive Statistics used are frequency, percentage, mean, and standard deviation.

Reliability test was used to check whether the items for each concept are homogeneous, measuring the concept of interest. It is found that the reliability for the research concept lies between 0.72 and 0.93. Therefore, no items were deleted.

## FINDINGS OF THE STUDY

### Results and Discussions

The companies that hire the disabled employees are mainly the medium size companies coming from the private sector. These companies belonged to the manufacturing, health/social work, and hotel/restaurant, food & beverages type of industry.

### Demographic Profile of the Respondents

Table 1 presents the demographic characteristics of the disabled respondents.

**Table 1: Demographic profile of the respondents**

Demographic Profile of the Respondents		Disabled Employee (N=384)	
		Frequency	Percentage
<b>Gender</b>	Male	163	42.4
	Female	221	57.6
	<b>Total</b>	<b>384</b>	<b>100.0</b>
<b>Age</b>	25 years and below	51	13.4
	26 – 35 years	190	49.7
	36 – 45 years	103	27.0
	46 – 55 years	31	8.1
	56 – 65 years	7	1.8
	<b>Total</b>	<b>382</b>	<b>100.0</b>
<b>Ethnicity</b>	Malay	262	68.2
	Chinese	71	18.5
	Indian	44	11.5
	Others	7	1.8

	<b>Total</b>	<b>384</b>	<b>100.0</b>
<b>Level of Education</b>	UPSR	42	11.2
	PMR	65	17.3
	SPM/SPVM	102	27.1
	STPM/Cert.	66	17.6
	Diploma	55	14.6
	Degree	38	10.1
	Master	6	1.6
	Ph.D.	2	0.5
	<b>Total</b>	<b>376</b>	<b>100.0</b>

It is found that there exists a slightly more female disabled employees (57.6%) compared to their male counterparts (42.4%). Almost half of the disabled employees (49.7%) belonged to the 26-35 years old age groups. More than two-thirds of them are Malay (68.2%), followed by Chinese (18.5%), and Indian (11.5%). They mainly have SPM/SPVM (27.1%), STPM/Cert. (17.6%), or PMR (17.3%).

### **Aspects of Workplace Built Environment Facilities for the Disabled Employees**

Various aspects of workplace built environment are explored and rated. These aspects are in terms of the organization contributions for the disabled employees, facilities provided, accessibility at workplace, and the level of satisfaction of the disabled employees towards the facilities provided.

#### **Organization Contributions for the Disabled Employees**

The disabled reported that their organizations have contributed for the betterment of them in relation to workplace built environment (Table 2). Such contributions include special equipment (78.8%), and workplace/premises modification (78.0%) and redesigning of workplace (67.5%) especially tailored for them.

**Table 2: Organizational Contributions for the disabled employees**

<b>Organization contributions (72.7%)</b>	<b>Mean</b>	<b>SD</b>	<b>%</b>	<b>Total</b>
Special equipment is provided for me.	3.15	1.00	78.8	386
Workplace/premises are modified properly for me.	3.12	0.95	78.0	386
Redesigning of workplace is done properly for me.	2.70	0.90	67.5	386

\*1=strongly disagree (1-25%), 2=disagree (26-50%), 3=agree (51-75%), 4=strongly agree (76-100%)

#### **Facilities Provided to the Disabled Employees**

Facilities provided by the organizations are rated by the disabled employees (Table 3). The lowest rated facility by the disabled employees is



that the front-liners/receptionists' ability to communicate with certain disabled employees (30.45). However, other facilities (33.6-40.9%) are rated higher by the disabled employees. Nonetheless, on the whole, the facilities are still lacking for the disabled employees.

**Table 3: Workplace built environment facilities for the disabled employees**

<b>Workplace Built Environment Facilities Provided</b>	<b>Yes</b>	<b>No</b>
Ramp at main entrance for the disabled employees (N=380).	36.6	63.4
Front liners/receptionists are able to communicate with certain disabled employees (N=382).	30.4	69.6
Braille button at the lift for the vision impaired employees (N=379).	39.3	60.7
Railing provided at appropriate place for the disabled employees (N=377).	34.2	65.8
Accessible parking for the disabled employees (N=383).	36.8	63.2
Signage for the disabled employees (N=381).	38.6	61.4
Tactile warning floor for the vision impaired employees (N=378).	37.8	62.2
Accessible toilet for the wheelchair users (N=381).	33.6	66.4
Flashing lights as a warning for the hearing impaired employees (N=381).	34.4	65.6
Interpreter for the hearing impaired employees (N=381).	40.9	59.1

### **Accessibility at the Workplace**

The workplace accessibility is rated by the disabled employees themselves (Table 4). The workplace accessibility is rated with regard to the facilities provided. The main entrance (83.0%) is highly rated by the disabled employees in terms of its accessibility. Parking (77.0%), doors (76.3%), steps and staircases (76.3%), and floor material (76.0%) are found to be very easily used at the workplace by the disabled employees. Other facilities are also easily used by the disabled employees (70.7-74.7%). However, on the whole, the facilities provided are considered as easy to use (75.5%), according to the level of their agreement.

**Table 4: Workplace accessibility as perceived by the disabled employees**

<b>Facilities Provided</b>	<b>Mean</b>	<b>SD</b>	<b>Percentage</b>	<b>Total</b>
<b>Workplace Accessibility*</b>				
<b>Main entrance</b>	<b>3.32</b>	<b>0.74</b>	<b>83.0</b>	<b>382</b>
<b>Parking</b>	<b>3.08</b>	<b>0.90</b>	<b>77.0</b>	<b>364</b>
<b>Doors</b>	<b>3.05</b>	<b>0.80</b>	<b>76.3</b>	<b>369</b>
<b>Steps and stairs</b>	<b>3.05</b>	<b>0.83</b>	<b>76.3</b>	<b>353</b>
<b>Floor material</b>	<b>3.04</b>	<b>0.81</b>	<b>76.0</b>	<b>325</b>
Resting facilities	2.99	0.84	74.7	333
Toilet	2.98	0.80	74.5	376
Corridors	2.98	0.79	74.5	370
Office furniture	2.98	0.86	74.5	338

Filing cabinet	2.98	0.86	74.5	337
Eating outlets	2.97	0.84	74.3	337
Handrails at toilets	2.92	0.92	73.0	331
Pedestrian crossing	2.91	0.86	72.8	372
Elevators	2.91	0.88	72.8	334
Office space	2.89	0.80	72.3	376
Ramps	2.89	0.93	72.3	333
Public phones	2.83	0.87	70.7	327
<b>Total</b>	<b>3.02</b>	<b>0.45</b>	<b>75.5</b>	<b>253</b>

\* 1=Very difficult (1-25%); 2=Difficult (26-50%); 3=Easy (51-75%); 4=Very easy (76-100%)

### Level of Satisfaction of the Disabled Employees toward the Facilities Provided

The disabled employees are satisfied with the condition of the facilities provided (70.8%). The highest level of satisfaction goes to the maintenance of the facilities (72.2%) while the lowest goes to the safety of the environment (69.7%).

**Table 4: The level of satisfaction towards the facilities provided**

Condition of the Facilities Provided*	Mean	SD	Percentage	Total (N)
Maintenance of the facilities.	4.35	1.00	72.2	384
Availability of facilities provided for the disabled person.	4.26	1.11	70.7	385
Cleanliness of the facilities.	4.22	1.05	70.1	385
Accessibility for wheelchair users.	4.22	1.21	70.1	381
Safety of the environment.	4.20	1.03	69.7	385
<b>Total</b>	<b>4.25</b>	<b>0.84</b>	<b>70.8</b>	<b>381</b>

\*1=Very highly dissatisfied (1-17%); 2=Very dissatisfied (18-33%); 3=Dissatisfied (34-50%); 4=Satisfied (51-67%); 5=Very satisfied (68-82%); 6=Very highly satisfied (83-100%)

### CONCLUSION

Based on the findings of the study, it can be concluded that organizations do contribute in providing special equipment and workplace/premise modification to the disabled employees. However, redesigning of workplace is not done properly as expected by the disabled employees. Accordingly, not many organizations have provided the workplace built environment facilities for the disabled employees. Nonetheless, only certain facilities are very easy to use such as main entrance, parking, door, steps and stairs and floor material suitability. Other facilities are quite easy to use, too. Above all, the study found that the disabled employees are very satisfied with their organization in giving priority to the maintenance of the available facilities for the disabled, their cleanliness, accessibility and even their safety.

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